I. AMENDMENT

Listing of Claims

- 1. (Currently amended) A method of inhibiting angiogenesis in a <u>human</u> patient in need of such treatment comprising administering to the patient <u>an effective amount of</u> a human melanoma differentiation antigen-7 (MDA-7) polypeptide or a nucleic acid expressing the human MDA-7 polypeptide in eukaryotic cells <u>to inhibit angiogenesis</u>, whereby the MDA-7 polypeptide inhibits angiogenesis in the patient.
- 2. (Original) The method of claim 1, wherein said patient exhibits an angiogenesis-related disease.
- 3. (Original) The method of claim 2, wherein the angiogenesis-related disease is further defined as angiogenesis-dependent cancer, a benign tumor, rheumatoid arthritis, psoriasis, an ocular angiogenic disease, Osler-Webber Syndrome, myocardial angiogenesis, plaque neovascularization, a telangiectasia, hemophiliac joint, angiofibroma, wound granulation, cat scratch disease, an ulcer, an intestinal adhesion, atherosclerosis, scleroderma, or a hypertrophic scar.
- 4. (Original) The method of claim 3, wherein angiogenesis-dependent cancer is further defined as a solid tumor, leukemia, or a tumor metastasis.
- 5. (Withdrawn) The method of claim 3, wherein the benign tumor is further defined as a hemangioma, a neuroma, a neurofibroma, a trachoma, uterine fibroid, hamartoma, teratoma, or a pyogenic granuloma.
- 6. (Withdrawn) The method of claim 3, wherein the ocular angiogenic disease is further defined as diabetic retinopathy, retinopathy of prematurity, macular degeneration, corneal graft rejection, neovascular glaucoma, retrolental fibroplasia, or Rubeosis.

- 7. (Original) The method of claim 1, wherein the nucleic acid is an expression vector.
- 8. (Original) The method of claim 7, wherein the expression vector is a viral vector.
- 9. (Original) The method of claim 8, wherein the viral vector is administered at between 10^3 and 10^{13} pfu.
- 10. (Original) The method of claim 8, wherein said viral vector is an adenoviral vector, a retroviral vector, a vaccinia viral vector, an adeno-associated viral vector, a polyoma viral vector, or a herpesviral vector.
- 11. (Original) The method of claim 8, wherein said viral vector is an adenoviral vector.
- 12. (Original) The method of claim 1, wherein said nucleic acid further comprises a CMV IE, dectin-1, dectin-2, human CD11c, F4/80, SM22 or MHC class II promoter.
- 13. (Original) The method of claim 1, wherein the MDA-7 polypeptide or nucleic acid is administered to the patient by direct injection into an area in need of inhibition of angiogenesis.
- 14. (Original) The method of claim 13, wherein the patient is administered multiple injections.
- 15. (Currently amended) The method of claim [13] 1, wherein the injection is performed locally to a disease site.
- 16. (Currently amended) The method of claim [13] 1, wherein the injection is performed regionally to a disease site.

- 17. (Currently amended) The method of claim [13] 1, wherein the injection is performed distally to a disease site.
- 18. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered to the patient by continuous infusion.
- 19. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered to the patient by intravenous injection.
- 20. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered prior to or after surgery.
- 21. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered before chemotherapy, immunotherapy, or radiotherapy.
- 22. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered during chemotherapy, immunotherapy, or radiotherapy.
- 23. (Original) The method of claim 1, wherein the MDA polypeptide or the nucleic acid is administered after chemotherapy, immunotherapy, or radiotherapy.
- 24. (Original) The method of claim 1, wherein the patient is a human.
- 25. (Original) The method of claim 1, wherein the MDA polypeptide comprises amino acids from 1 to 206 of SEQ ID NO:2.

26.-31. (Cancelled)

32. (Original) The method of claim 1, wherein the MDA polypeptide comprises amino acids from 182 to 206 of SEQ ID NO:2.

- 33. (Original) The method of claim 1, wherein the MDA polypeptide comprises a secretory signal.
- 34. (Original) The method of claim 33, wherein the secretory signal is further defined as a positively charged N-terminal region in combination with a hydrophobic core.
- 35. (Original) The method of claim 1, wherein the patient is a cancer patient.
- 36. (Currently amended) A method of inhibiting endothelial cell differentiation in a <u>human</u> patient comprising administering to the patient an effective amount of a human MDA-7 polypeptide or a nucleic acid molecule expressing the human MDA-7 polypeptide.
- 37. (Original) The method of claim 36, wherein a chemotherapeutic agent is administered prior to administration of the MDA-7 polypeptide or the nucleic acid molecule.
- 38. (Original) The method of claim 36 wherein a chemotherapeutic agent is administered after administration of the MDA-7 polypeptide or the nucleic acid molecule.
- 39. (Original) The method of claim 36, wherein the chemotherapeutic agent is a DNA damaging agent.
- 40. (Original) The method of claim 39, wherein the DNA damaging agent is gamma-irradiation, X-rays, UV-irradiation, microwaves, electronic emissions, adriamycin, 5-fluorouracil (5FU), etoposide (VP-16), camptothecin, actinomycin-D, mitomycin C, cisplatin (CDDP), or hydrogen peroxide.
- 41. (Original) The method of claim 38, wherein the chemotherapeutic agent is a cisplatin (CDDP), carboplatin, procarbazine, mechlorethamine, cyclophosphamide, camptothecin, ifosfamide, melphalan, chlorambucil, bisulfan, nitrosurea, dactinomycin, daunorubicin, doxorubicin, bleomycin, plicomycin, mitomycin, etoposide (VP16), tamoxifen, taxol,

transplatinum, 5-fluorouracil, vincristin, vinblastin, methotrexate, or analog or derivative variant thereof.

- 42. (Original) The method of claim 36, wherein the nucleic acid is comprised within a viral vector.
- 43. (Original) The method of claim 36, wherein the nucleic acid is comprised in a lipid composition.
- 44. (Withdrawn) A method for promoting an immune response in a patient comprising providing to the subject an amount of an MDA-7 polypeptide effective to induce an immune response in the patient.
- 45. (Withdrawn) The method of claim 44, further comprising administering to the patient an antigen against which an immune response is promoted.
- 46. (Withdrawn) The method of claim 45, wherein the antigen is a tumor antigen, microbial antigen, viral antigen, or fungal antigen.
- 47. (Withdrawn) The method of claim 46, wherein the antigen is a tumor antigen.
- 48. (Withdrawn) The method of claim 46, wherein the antigen is a microbial antigen.
- 49. (Withdrawn) The method of claim 46, wherein the antigen is a viral antigen.
- 50. (Withdrawn) The method of claim 46, wherein the antigen is a fungal antigen.
- 51. (Withdrawn) The method of claim 47, wheren the tumor antigen is PSA, CEA, MART, MAGE1, MAGE 3, gp100, BAGE, GAGE, TRP-1, TRP-2, or PMSA.

- 52. (Withdrawn) The method of claim 44, wherein the MDA-7 is provided to the patient by administering to the subject an expression construct comprising a nucleic acid sequence encoding at least 50 contiguous amino acids of SEQ ID NO:2, wherein the nucleic acid sequence is under the transcriptional control of a promoter.
- 53. (Withdrawn) The method of claim 52, wherein the expression construct is a viral vector.
- 54. (Withdrawn) The method of claim 53, wherein the viral vector is an adenovirus vector, an adeno-associated virus vector, a herpesvirus vector, a retrovirus vector, a lentivirus vector, a vaccinia virus vector, or a polyoma vector.
- 55. (Withdrawn) The method of claim 44, wherein the antigen is provided to the patient by administering to the patient an expression construct comprising a nucleic acid sequence encoding the antigen, wherein the nucleic acid sequence is under the transcriptional control of a promoter.
- 56. (Withdrawn) The method of claim 44, wherein the MDA-7, antigen, or both are provided to the patient more than one time.
- 57. (Withdrawn) The method of claim 44, wherein the MDA-7, antigen, or both are provided to the patient intravenously, directly, intraperitoneally, regionally, systemically, or orally.
- 58. (Withdrawn) The method of claim 44, wherein the MDA-7 and antigen are provided to the subject at the same time.
- 59. (Withdrawn) A method of inducing expression of IL-6, IFN γ , or TNF α in a cell comprising administering to the cell an effective amount of an MDA-7 polypeptide or a nucleic acid expressing the MDA-7 polypeptide.
- 60. (Withdrawn) The method of claim 59, wherein expression of IL-6 is induced.

- 61. (Withdrawn) The method of claim 59, wherein expression of TNFα is induced.
- 62. (Withdrawn) The method of claim 59, wherein expression of IFN γ is induced.
- 63. (Withdrawn) The method of claim 59, wherein the cell is in a patient.
- 64. (Withdrawn) A method of reducing cell damage from chemotherapy or radiotherapy in a cancer patient comprising administering to the patient an effective amount of a human MDA-7 polypeptide or a nucleic acid expressing the human MDA-7 polypeptide.
- 65. (Withdrawn) The method of claim 64, wherein the MDA polypeptide or nucleic acid is administered to the patient when chemotherapy or radiotherapys is administered.
- 66. (Withdrawn) The method of claim 64, wherein the MDA polypeptide or nucleic acid is administered to the patient after chemotherapy or radiotherapy is administered.
- 67. (Withdrawn) The method of claim 54, wherein the MDA polypeptide or nucleic acid is administered to the patient more than one time.
- 68. (Withdrawn) The method of claim 32, wherein the MDA polypeptide comprises amino acids from 175 to 206 of SEQ ID NO:2.
- 69. (Withdrawn) The method of claim 68, wherein the MDA polypeptide comprises amino acids from 150 to 206 of SEQ ID NO:2.
- 70. (Withdrawn) The method of claim 69, wherein the MDA polypeptide comprises amino acids from 125 to 206 of SEQ ID NO:2.
- 71. (Withdrawn) The method of claim 70, wherein the MDA polypeptide comprises amino acids from about 100 to about 206 of SEQ ID NO:2.

- 72. (Withdrawn) The method of claim 71, wherein the MDA polypeptide comprises amino acids from 75 to 206 of SEQ ID NO:1.
- 73. (Withdrawn) The method of claim 72, wherein the MDA polypeptide comprises amino acids from 49 to 206 of SEQ ID NO:2.
- 74. (Withdrawn) The method of claim 73, wherein the MDA polypeptide comprises amino acids from 1 to 206 of SEQ ID NO:2.
- 75. (New) The method of claim 8, wherein 10^{10} to 10^{13} viral particles are administered.
- 76. (New) The method of claim 75, wherein 10^{11} to 10^{12} viral particles are administered.
- 77. (New) The method of claim 3, wherein the angiogenesis-dependent cancer is a hepatocarcinoma, retinoblastoma, astrocytoma, leukemia, neuroblastoma, mesothelioma, or non-small cell lung, small-cell lung, lung, head, neck, pancreatic, prostate, renal, bone, testicular, ovarian, cervical, gastrointestinal, lymphoma, brain, colon or bladder cancer.